

TUNGSTEN CARBIDE COATINGS AND PROCESS FOR PRODUCING THEM

Abstract

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New tungsten carbides alloyed with fluorine in amounts up to 0.5 wt% and possibly with fluorocarbon compositions are described. It is possible to produce them by means of a new process of chemical vapour deposition, in which tungsten hexafluoride, hydrogen and a carbon-containing gas are used. A specific feature of the new process is the preliminary thermal activation of the carbon-containing gas.

The tungsten carbide coatings are deposited on construction materials and items made from them. They possess enhanced resistance to wear, corrosion and chemicals.

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